What is Claimed is:

1. A method for detecting and locating heart disease comprising the steps of:

obtaining electrocardiograph (EKG) signals from a patient;

modifying said EKG signals; and

5   establishing a base value for use in evaluating modified EKG signals.

2. The method of Claim 1 wherein said step of obtaining includes the steps of:

providing an electrocardiograph;

providing a plurality of connectors between a plurality of locations on said patient and

10   said electrocardiograph; and

operating said electrocardiograph to take readings from said plurality of locations and to

output said EKG signals.

3. The method of Claim 2 wherein said plurality of locations include positions proximate

15   said patient's Right Arm (RA), Left Arm (LA), Right Foot (RF), Left Foot (LF), and six separate

areas on said patient's Chest (C1-C6).

4. The method of Claim 1 wherein said step of modifying includes the steps of:

mathematically modifying said EKG signals to obtain altered signals in time domain; and

20   converting said altered signals in said time domain into power spectrum signals in

frequency domain.

5. The method of Claim 4 wherein said step of modifying further includes the steps of:

amplifying said EKG signals; and

digitizing amplified EKG signals.

5   6. The method of Claim 4 wherein said altered signals in said time domain comprise at

least one of 12 lead signals, namely, lead I, lead II, lead III, lead aVR, lead aVL, lead aVF, lead

V1, lead V2, lead V3, lead V4, lead V5, and lead V6.

7. The method of Claim 1 wherein said step of establishing said base value comprises

10   the steps of:

obtaining said patient's heart rate; and

applying a conversion factor to said heart rate to obtain said base value.

8.   The method of Claim 7 wherein said step of obtaining said patient's heart rate

15   comprises at least one of measuring said patient's heart rate, and acquiring said patient's heart rate

from data relating to physical and medical characteristics of said patient.

9. The method of Claim 7 wherein said heart rate comprises said patient's resting heart

rate.

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10. The method of Claim 7 wherein said step of applying said conversion factor comprises the steps of:

converting said heart rate defined in beats per minute to beats per second; and

multiplying said heart rate defined in beats per second by a scaling quantity.

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11. The method of Claim 10 wherein said scaling quantity comprises any number between approximately three and seven, inclusively.

12. The method of Claim 10 wherein said scaling quantity preferably comprises a number

10   five.

13. The method of Claim 4 further comprising the steps of:

calculating a first area by integrating a selected one of said power spectrum signals from zero Hertz to said base value;

15   calculating a second area by integrating said selected one of said power spectrum signals from said base value to infinity; and

dividing a first calculated value corresponding to said first area by a second calculated value corresponding to said second area to obtain an evaluation standard corresponding to said selected one of said power spectrum signals.

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14. The method of Claim 13 wherein a first state of said evaluation standard comprises a value of approximately $\geq$ one to indicate a healthy state for said patient, and a second state of said evaluation standard comprises a value of approximately $<$ one to indicate an unhealthy state for said patient.

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15. The method of Claim 13 further including the step of obtaining a separate evaluation standard for each of said power spectrum signals in said frequency domain.

16. The method of Claim 4 further comprising the step of analyzing peaks for each of
10 said power spectrum signals in said frequency domain against a plurality of evaluative standards for said peaks.

17. The method of Claim 16 wherein said evaluative standards for said peaks include at least one of:

determining if a second peak is greater in magnitude than a first peak for any of said power spectrum signals as indicative of an unhealthy state for said patient;

5   determining if a fifth peak is greater in magnitude than said first peak for any of said power spectrum signals as indicative of an unhealthy state for said patient;

determining if said fifth peak is greater in magnitude than a third peak for any of said power spectrum signals as indicative of an unhealthy state for said patient;

determining if a fourth peak is greater in magnitude than said third peak for any of said

10   power spectrum signals as indicative of an unhealthy state for said patient;

determining if said first peak is relatively low in magnitude for any of said power spectrum signals as indicative of an unhealthy state for said patient;

determining if said third peak is relatively low in magnitude for any of said power spectrum signals as indicative of an unhealthy state for said patient;

15   determining if said first, second, third, and fourth peaks are relatively low in magnitude for any of said power spectrum signals as indicative of an unhealthy state for said patient; and

determining if said first, second, third, and fourth peaks are relatively high in magnitude for any of said power spectrum signals as indicative of an unhealthy state for said patient;

wherein said first, second, third, fourth, and fifth peaks correspond to a first five

20   consecutive peaks in any of said power spectrum signals as viewed moving up in frequency from zero Hertz in said frequency domain.

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18. The method of Claim 13 wherein said locating said heart disease comprises the steps of:

providing a plurality of locating standards wherein each locating standard corresponds to a distinct location of potential heart disease; and

5   evaluating each locating standard of said plurality of locating standards to determine whether any distinct locations have heart disease.

19. The method of Claim 18 wherein said step of providing a plurality of locating standards comprises the step of establishing a sum of different evaluation standards for each

10   locating standard of said plurality of locating standards.

20. The method of Claim 19 wherein said step of evaluating each locating standard comprises the steps, repeated for each locating standard, of:

adding said sum of different evaluation standards for a selected locating standard;

comparing said sum to a number of evaluation standards comprising said sum for said

5   selected locating standard to determine whether said sum is $\geq$ said number of evaluation standards, and to determine whether said sum is $<$ said number of evaluation standards;

assigning said distinct location of said potential heart disease corresponding to said selected locating standard with a determination of an unhealthy state for said patient when said sum is $<$ said number of evaluation standards; and

10   assigning said distinct location of said potential heart disease corresponding to said selected locating standard with a determination of a healthy state for said patient when said sum is $\geq$ said number of evaluation standards.

21. The method of Claim 20 wherein said plurality of locating standards and their corresponding distinct locations of potential heart disease define an analysis table comprising:

(1) V1 + V2 + V3 + V4 ↔ Anteroseptal;

(2) V2 + V3 + V4 + V5 ↔ Anterior;

(3) II + aVF + V1 + V2 ↔ Inferior Posterior;

(4) I + aVL + V3 + V4 + V5 + V6 ↔ Anterolateral;

(5) I + aVL + V5 + V6 ↔ Lateral;

(6) I + aVR + aVL + V6 ↔ Lead I Area;

(7) II + aVR + aVF ↔ Lead II Area;

(8) III + aVL + aVF ↔ Lead III Area;

(9) I + II + aVR + V5 ↔ Lead aVR Area;

(10) I + III + aVL ↔ Lead aVL Area;

(11) II + III + aVF ↔ Lead aVF Area;

(12) V1 + V2 + V6 ↔ Lead V1 Area;

(13) V1 + V2 + V3 ↔ Lead V2 Area;

(14) V2 + V3 + V4 ↔ Lead V3 Area;

(15) V3 + V4 + V5 ↔ Lead V4 Area;

(16) V4 + V5 + V6 ↔ Lead V5 Area;

(17) V1 + V5 + V6 ↔ Lead V6 Area;

(18) V1 + V2 ↔ Septal; and

(19) II + aVF ↔ Inferior.

22. The method of Claim 19 wherein when said sum is $\geq$ its corresponding number of evaluation standards for each locating standard of said plurality of locating standards, no distinct location of potential heart disease is detected.

23. The method of Claim 19 wherein when said sum is $<$ its corresponding number of evaluation standards for only one locating standard of said plurality of locating standards, said distinct location corresponding to said only one locating standard has detected heart disease.

24. The method of Claim 21 wherein when said sum is $<$ its corresponding number of evaluation standards for more than one locating standard of said plurality of locating standards, each distinct location corresponding to said more than one locating standard of said plurality of locating standards has detected heart disease.

25. The method of Claim 24 wherein when a plurality of locating standards have their sums $<$ their corresponding number of evaluation standards, a most accurate prediction of said distinct location for said detected heart disease corresponds to a locating standard of said plurality of locating standards with their sums $<$ their corresponding number of evaluation standards that is located highest on said analysis table, with all remaining locating standards of said plurality of locating standards having their sums $<$ their corresponding number of evaluation standards being of lesser accuracy in completely locating an area of said detected heart disease as their corresponding distinct locations move down said analysis table.

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26. The method of Claim 18 wherein at least one but less than all of said plurality of locating standards are evaluated to determine whether any of said distinct locations have heart disease.

27. The method of Claim 6 wherein all of said 12 lead signals are simultaneously and continuously obtained over a period of time for said step of converting said altered signals in said time domain into said power spectrum signals in said frequency domain.

28. The method of Claim 27 wherein said period of time comprises a duration in excess of one second.

29. The method of Claim 27 wherein said period of time comprises a duration of approximately 88 seconds.

30. A system for detecting and locating heart disease comprising, in combination:
means for obtaining electrocardiograph (EKG) signals from a patient;
means for modifying said EKG signals coupled to said means for obtaining; and
means for establishing a base value for use in evaluating modified EKG signals.

31. The system of Claim 30 wherein said means for modifying further includes:

means for amplifying said EKG signals;

means for digitizing amplified EKG signals; and

a processor coupled to said means for digitizing.

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32. The system of Claim 31 wherein said processor includes:

means for mathematically modifying said EKG signals to obtain altered signals in time domain; and

means for converting said altered signals in said time domain into power spectrum signals

10   in frequency domain.

33. The system of Claim 32 wherein said altered signals in said time domain comprise at least one of 12 lead signals, namely, lead I, lead II, lead III, lead aVR, lead aVL, lead aVF, lead V1, lead V2, lead V3, lead V4, lead V5, and lead V6.

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34. The system of Claim 30 wherein said means for establishing a base value comprises:

means for obtaining said patient's heart rate; and

means for applying a conversion factor to said heart rate to obtain said base value.

35. The system of Claim 34 wherein said means for applying said conversion factor comprises:

means for converting said heart rate defined in beats per minute to beats per second; and

5   means for multiplying said heart rate defined in beats per second by a scaling quantity.

36. The system of Claim 35 wherein said scaling quantity comprises any number between approximately three and seven, inclusively.

10   37. The system of Claim 35 wherein said scaling quantity preferably comprises a number five.

38. The system of Claim 32 wherein said processor further includes:

means for calculating a first area by integrating a selected one of said power spectrum

15   signals from zero Hertz to said base value;

means for calculating a second area by integrating said selected one of said power spectrum signals from said base value to infinity; and

means for dividing a first calculated value corresponding to said first area by a second calculated value corresponding to said second area to obtain an evaluation standard

20   corresponding to said selected one of said power spectrum signals.

39. The system of Claim 38 wherein a first state of said evaluation standard comprises a value of approximately $\geq$ one to indicate a healthy state for said patient, and a second state of said evaluation standard comprises a value of approximately $<$ one to indicate an unhealthy state for said patient.